
TYPE A ASPHALT CONCRETE

GENERAL

Type A Asphalt Concrete binder, leveling, strengthening, and surface course mixtures are composed of combinations of high quality gravel, crushed stone, and sand produced from approved sources and formulated for service on road surfaces carrying high traffic volumes. Mixtures designated a 25 mm (1 in.) and 19 mm ($\frac{3}{4}$ in.) may also be placed full depth as base or widening although economic considerations will normally favor usage of lower mixture classes except when small quantities are required. Because four mix sizes are available, care must be exercised in selecting the lift thickness and mix sizes during the various stages of design and construction so that the appropriate requirements are met.

JOB MIX FORMULA

Job mix formulae are required by the specification for all aggregate combinations. In each case, representative samples are to be obtained as directed by the District Materials Engineer and submitted to the Central Laboratory for analysis. A job mix formula will be set for each aggregate combination on the basis of gradation, stability, asphalt content and voids. The design criteria developed from laboratory studies and performance evaluations apply specifically to wearing courses; limiting values for the various characteristics for each mixture as actually produced are provided in [Materials I.M. 511](#). The formulae are comprised of the aggregate percentages, percent asphalt, and gradation as limited by specified tolerances for each controlling sieve size.

In the event satisfactory job mix formulae cannot be set within the limitations imposed by the specifications, they may be set by extra work order with the advance approval of the Construction Engineer. Formulae set in this manner may be outside of the standard limits and may incorporate materials percentages or material types other than specified. Adjustments in contract unit price may be required depending upon the type of changes ordered.

SPECIAL REQUIREMENTS

The standard specifications for Type A aggregates and mixes provide for usage of a restricted range of aggregates and formulations. These requirements will provide the design level of service, moderate to heavy traffic, under average service conditions, although some aggregates or aggregate combinations may not exhibit satisfactory performance when incorporated in surface courses. Problems of this type will vary across the state and are to be monitored by the District Materials Engineer. Special specifications will be prepared by the Central Office Materials staff on request or by recommendation by the District for specific projects. In some cases special provisions will be initiated by the Central Office staff for projects that will be subjected to unusual service conditions or contain special designs.

INSPECTION

Plant calibration and inspection procedures are provided in [Materials I.M. 508](#) and [I.M. 509](#). Sampling and testing requirements are contained in [Materials I.M. 204](#) and I.M. series 300. The Office of Construction provides additional information and instructions.

It should be noted that the specifications may provide for separate measurement for payment of the asphalt cement. The tonnage of asphalt cement is not deducted from the tonnage of mixture incorporated and accepted in the work.